

## BPM cable matching measurements

June 17, 2008

Test Performed by: R. Michnoff, J. Cupolo, J. Gullotta

Notes prepared by: R. Michnoff

Description: The timing difference between BPM cable pairs was measured for a selected few BPMs from 1006B using a TDR.

Location: 1006B

Some Difficulties with Measurements: The BPM cables were connected in the ring, making the TDR measurement a slow curve down to 0 ohms. An additional test might be performed with the cables disconnected at the cryostat in the ring. This will provide a sharper edge toward infinity at the cable end, and may help improve the accuracy of the measurement.

The following measurements were taken from the cable end that normally connects to the IFE (excluding the filter), and measured through all cables, splitters, and cryostat cables to the BPM stripline.

<b>BPM</b>	<b>Difference Between cable pairs (picoseconds)</b>
------------	---

5 o'clock Yellow Horiz DX	~70
5 o'clock Yellow Vert DX	<10
5 o'clock Blue Horiz DX	~85
5 o'clock Blue Vert DX	<10
6 o'clock Yellow Horiz DX	~100
6 o'clock Yellow Vert DX	~45
6 o'clock Blue Horiz DX	~65
6 o'clock Blue Vert DX	~50
5 o'clock Blue Horiz Q3	~65
5 o'clock Blue Vert Q1	2000 (???)

Other notes: The 5 o'clock Blue Horiz Q1 signal was very jumpy and therefore could not be measured.